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(74) Agents: HAVERSTOCK, Thomas, B. et al.; Haverstock & Owens LLP, Suite 420, 260 Sheridan Avenue, Palo Alto, CA 94306 (US). (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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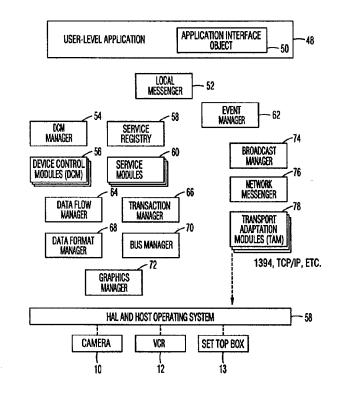
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(54) Title: MEDIA MANAGER FOR CONTROLLING AUTONOMOUS MEDIA DEVICES WITHIN A NETWORK ENVIRONMENT

### (57) Abstract

A media manager provides data flow management and other services for client applications on devices coupled together within a network. Preferably, these devices are coupled together within an IEEE 1394-1995 serial bus network. A device control module is generated for each available device for providing an abstraction for all of the capabilities and requirements of the device including the appropriate control protocol, physical connections and connection capabilities for the device. The media manager also manages the flow and format of data transfers between the devices on the network. Through an interface, a user accesses the media manager and enters functions which are to be completed using the devices coupled together on the network. If the appropriate devices are available, the media manager controls and manages the completion of the requested task. If the appropriate devices are not available, but the required subdevices are available in multiple devices, the media manager forms a virtual device from subdevices in multiple devices in order to complete the requested task. Once the appropriate devices and subdevices are assigned to a task, the media manager determines if the data to be transmitted needs to be converted from one format into another format. If necessary, the media manager will also control the format conversion during the data transfer operation. The media manager also provides network enumeration and registry searching capabilities for client applications to find available services, physical devices and virtual devices.



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#### INTERNATIONAL SEARCH REPORT

Interr nal Application No PCT/US 99/09490

A. CLASSIFICATION OF SUBJECT MATTER IPC 6 H04L12/40 H04L H04L29/08 G06F13/00 According to International Patent Classification (IPC) or to both national classification and IPC **B. FIELDS SEARCHED** Minimum documentation searched (classification system followed by classification symbols) IPC 6 H04L G06F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ° Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. MINERS R F, FRIESEN J A, YANG, C L: 17,23 X "Dave: A plug-and-play model for distributed multimedia application development" PROCEEDINGS ACM MULTIMEDIA 94, 15 - 20 October 1994, pages 22-28, XP002125719 Α abstract 1-16.18-22. 24-30 figures 3,4 page 22, line 11-L page 23, line 24-45 page 24, column 2, line 8-16 -/--X Further documents are listed in the continuation of box C. X Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such docu-"O" document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 22 December 1999 13/01/2000 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016 Cichra, M

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